

# MCL Reconstruction

Postop	Goals	Precautions	Exercises
<p><b>PHASE I</b></p> <p><b>Weeks 0-3</b></p> <p>PT : 1-2x/week</p> <p>HEP daily</p>	<p>Passive extension to 0 only</p> <p>Reduce swelling</p> <p>90° flexion by 2 weeks post-op</p> <p>Maintain patella glide</p> <p>Achieve good quad set at 0° and 90°</p>	<p>Brace removal prn by therapist for exercises</p> <p>Brace locked at 0° for sleeping until 0° extension maintained</p> <p><b>NWB</b> immediately post-op.</p> <p>Brace locked at 0° for ambulation</p> <p>Full ROM</p>	<ol style="list-style-type: none"> <li>0° quad sets (consider NMES or biofeedback for protocol control).</li> <li>Assisted flexion (dangle) with uninvolved leg crossed under ankle.</li> <li>90° quadriceps isometrics once 90° flexion achieved.</li> <li>Passive hyperextension (sitting) to zero ASAP.</li> <li>Straight leg raises, all planes, with brace locked in full extension.</li> <li>Calf, hamstring stretching, calf pumps.</li> <li>Heel slides.</li> </ol>
<p><b>PHASE II</b></p> <p><b>Weeks 3-6</b></p> <p>PT: 1- 2x/week</p> <p>HEP daily</p>	<p>Passive extension to zero mandatory</p> <p>50% WB in brace and w/ crutches</p> <p>Restore patella mobility to normal</p> <p>Achieve good quad set at 0° and 90°</p> <p>Brace until 6 weeks po</p> <p>Full ROM</p>	<p>Avoid terminal open chain quad PRE</p>	<ol style="list-style-type: none"> <li>Patella and scar tissue mobilization by therapist and patient.</li> <li>Straight leg raises continue in brace until strength is sufficient to prevent extension lag. No SLR w/ weights</li> <li>Isometric quad sets at 90° knee flexion (use a belt looped around leg of chair).</li> <li>Theraband™ leg press from 100° to 0°.</li> <li>Calf strengthening (Heel raises standing, sitting, and Theraband™).</li> <li>Closed kinetic chain quadriceps strengthening with bands only</li> <li>Stationary bike – progress light resistance as tolerated.</li> </ol>

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<p><b>PHASE III</b></p> <p><b>Weeks: 6-10</b></p> <p>PT 2x/week</p> <p>HEP daily</p>	<p>Regain full motion to flexion.</p> <p>Restore patella mobility to normal.</p> <p>Begin improving proprioception.</p> <p>Normal community ambulation.</p> <p>Increasing strength with program in therapy and / or club.</p>	<p>Avoid terminal open chain quad PRE</p> <p>No jumping or cutting activities</p>	<ol style="list-style-type: none"> <li>1. Continue Range of motion / flexibility to equal opposite side</li> <li>2. Continue closed kinetic chain quad strengthening and progress to single leg mini squats (pt may use weighted back pack), single/ double leg press, wall sits to 90°, stepups, lateral step-up, and weighted terminal knee extension.</li> <li>3. Continue to progress hamstring, calf, and hip strengthening (side steps, resisted walking, raises, curls).</li> <li>4. Stationary bike – increase time and resistance levels. Progress to interval program.</li> <li>5. Elliptical, Nordic Trac, Stairmaster, treadmill machines and walking for conditioning with attention paid to patella symptoms.</li> <li>6. Pool programs – walking initially with progression to deep-water aqua jogging.</li> <li>7. Continue to progress proprioception and balance activities (ball toss, balance boards, foam, and mini trampoline).</li> <li>8. Open chain knee extension from 100° to 145°</li> <li>9. Isometric quad sets at 90° knee flexion – sitting and supine (ie. Hip flexed and neutral).</li> </ol>
<p><b>PHASE IV</b></p> <p><b>Weeks: 10-20</b></p> <p>PT 2-3x/week</p> <p>HEP daily</p>	<p>Full ROM Normal patella mobility.</p> <p>Gain sufficient strength, proprioception to initiate straight jogging.</p> <p>If swelling limits flexion – pt to take 2 Aleve PO BID.</p>	<p>No sudden starts/stops or quick change in direction.</p> <p>No jumping or cutting activities</p>	<ol style="list-style-type: none"> <li>1. Continue strength building program by increasing weights and decreasing repetitions per set, 3-4 times per week.</li> <li>2. Progress toward full weight-bearing jog at 12 weeks. Begin on treadmill and advance to track (initially walking curves). Slowly increase the pace and distance.</li> <li>3. Advanced proprioception activities.</li> <li>4. Isokinetic strengthening full range of motion if available.</li> <li>5. Open chain knee extension 30° to 0°</li> </ol>
<p><b>PHASE V</b></p> <p><b>Weeks: 20-24</b></p> <p>PT: 1-2x/week</p> <p>HEP daily</p>	<p>Restore advanced proprioception</p> <p>Restore normal muscle strength and endurance</p> <p>Safely restore functional sports performance in controlled setting.</p> <p>Slow and controlled cutting activities under light load.</p>	<p>Quadriceps/hamstring strength 80% of uninjured thigh required for phase V.</p> <p>No fast or aggressive cutting</p> <p>No hopping down from &gt; 12" height</p>	<ol style="list-style-type: none"> <li>1. 4 week return to sports program/ agility program issued by therapist / physician.</li> <li>2. Slow progression into plyometric training.</li> <li>3. Cross overs</li> <li>4. Figure 8 running.</li> <li>5. Box / shuttle running</li> <li>6. Accelerating / decelerating sprints</li> <li>7. Progression into sport specific drills.</li> </ol>
<p><b>PHASE VI</b></p> <p>Begin 6 months post-op.</p> <p>Supervised but independent program</p>	<p>Equal performance lower extremities on single and 3 hop test</p> <p>Symmetric performance of basic and sport specific agility drills.</p> <p>Return to sports.</p>		

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